

limited and isolated basins of water, since fresh-water animals are their constant attendants.

Although the beds of coal of our secondary formations appear to have originated in a similar way with other mineral formations, and not by violent catastrophes, it is otherwise with a part of those vegetable remains which are met with in alluvial land. Subterranean forests, whose circumference, in some instances, extends about 70 square leagues, partly in a state of good preservation, and partly more or less decomposed, afford satisfactory proof of deluges, and have undoubtedly been covered up with earth by a violent eruption of standing or running water. But these are local effects, similar to what take place in our own day, but on a larger scale.

There are abundant fossil remains of land animals, resembling those of water animals, found in such a state of preservation, that we cannot suppose them to have been brought hither from distant places, and by means of currents. Their appearing in beds of rocks, or generally in aqueous precipitates, proves that the soil they first inhabited, must have been dry land, afterwards overflowed with water.

The appearance of what are called fresh water shells, in alternate beds with marine animals, being sometimes observed in newer floetz rocks in great abundance, seems to indicate a reiterated retreat and return of the sea. But however meritorious the labours of naturalists, through whom attention has been directed to the subject, may be in other respects, we are nevertheless disposed to entertain doubts concerning their conclusions. In our own seas and ponds upon the coasts, we observe the same